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Application No. 10/676,131

Docket No.: 14519-00003-US

AMENDMENTS TO THE CLAIMS

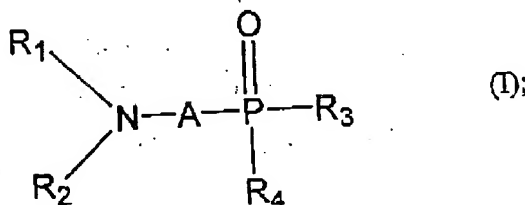
This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-33 (canceled)

Claim 34 (Currently amended): A method of preparing a pharmaceutical composition comprising

mixing a therapeutically effective amount of a compound, a tautomer, ester or amide of the compound or a pharmaceutically acceptable salt of the compound, tautomer, ester or amide, with a pharmaceutically acceptable excipient, wherein the compound corresponds in structure to Formula I:



wherein:

R₁ and R₂ are independently selected from the group consisting of hydrogen, substituted and unsubstituted alkyl, substituted and unsubstituted hydroxyalkyl, substituted and unsubstituted alkenyl, substituted and unsubstituted alkynyl, substituted and unsubstituted aryl, substituted and unsubstituted acyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted aralkyl, substituted and unsubstituted heterocyclic radical, halogen, OX₁ and OX₂;

X₁ and X₂ being independently selected from the group consisting of hydrogen, substituted and unsubstituted alkyl, substituted and unsubstituted hydroxyalkyl, substituted and unsubstituted alkenyl, substituted and unsubstituted alkynyl, substituted and unsubstituted aryl, substituted and unsubstituted acyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted aralkyl, substituted and unsubstituted heterocyclic radical;

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A is a ~~2-9~~ 3-9 carbon moiety selected from the group consisting of alkylene radical, alkenylene radical, and hydroxyalkylene radical, wherein A includes a straight chain of at least two carbon atoms between the nitrogen atom and the phosphorus atom of general formula (I); and

R₃ and R₄ are independently selected from the group consisting of hydrogen, substituted and unsubstituted C₁₋₂₆-alkyl, substituted and unsubstituted hydroxy-C₁₋₂₆-alkyl, substituted and unsubstituted aryl, substituted and unsubstituted acyl, substituted and unsubstituted aralkyl, substituted and unsubstituted C₁₋₂₆-alkenyl, substituted and unsubstituted C₁₋₂₆-alkinyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted heterocyclic radical, halogen, OX₃ and OX₄;

X₃ and X₄ being independently selected from the group consisting of hydrogen, substituted and unsubstituted C₁₋₂₆-alkyl, substituted and unsubstituted hydroxyl-C₁₋₂₆-alkyl, substituted and unsubstituted aryl, substituted and unsubstituted acyl, substituted and unsubstituted aralkyl, substituted and unsubstituted C₁₋₂₆-alkenyl, substituted and unsubstituted C₁₋₂₆-alkinyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted heterocyclic radical, silyl, a metal of the first, second or third main group of the periodic table, ammonium, substituted ammonium, ammonium salt of ethylene diamine and ammonium salt of an amino acid.

Claim 35 (Canceled)

Claim 36 (Currently amended): The method of claim ~~35~~ 45, wherein said compound is a compound of formula I, wherein:

R₂ is a substituted or unsubstituted acyl;

R₃ is selected from a group consisting of hydrogen, methyl and ethyl;

R₄ is selected from a group consisting of hydrogen, methyl, ethyl and OX₄;

X₄ being selected from hydrogen, sodium, potassium, methyl and ethyl; and

A is a 3 carbon moiety selected from the group consisting of alkylene radical, alkenylene radical, and hydroxyalkylene radical;

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or a tautomer of said compound, or a pharmaceutically acceptable salt of said compound or said tautomer.

Claim 37 (Previously presented): The method of claim 36, wherein said compound is a compound of Formula I, wherein:

X₁ is hydrogen;

R₂ is selected from formyl and acetyl; and

A is selected from propenylene and hydroxypropylene;

or a tautomer of said compound, or a pharmaceutically acceptable salt of said compound or said tautomer.

Claim 38 (Previously presented): The method of claim 34, wherein said compound is a compound of formula I, wherein

X₁ is hydrogen;

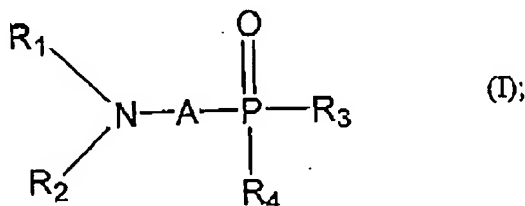
R₂ is selected from formyl and acetyl; and

A is selected from propenylene and hydroxypropylene;

or a tautomer of said compound, or a pharmaceutically acceptable salt of said compound or said tautomer.

Claim 39 (Currently amended): A method of treating subject susceptible to infection by an infectious agent comprising:

administering a therapeutically effective amount of a compound or a tautomer, ester or amide of the compound, or a pharmaceutically acceptable salt of the compound, tautomer, ester or aide, wherein the compound corresponds in structure to Formula I:



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wherein:

R₁ and R₂ are independently selected from the group consisting of hydrogen, substituted and unsubstituted alkyl, substituted and unsubstituted hydroxyalkyl, substituted and unsubstituted alkenyl, substituted and unsubstituted alkynyl, substituted and unsubstituted aryl, substituted and unsubstituted acyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted aralkyl, substituted and unsubstituted heterocyclic radical, halogen, OX₁ and OX₂;

X₁ and X₂ being independently selected from the group consisting of hydrogen, substituted and unsubstituted alkyl, substituted and unsubstituted hydroxyalkyl, substituted and unsubstituted alkenyl, substituted and unsubstituted alkynyl, substituted and unsubstituted aryl, substituted and unsubstituted acyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted aralkyl, substituted and unsubstituted heterocyclic radical;

A is a 2-9 carbon moiety selected from the group consisting of alkylene radical, alkenylene radical, and hydroxyalkylene radical, wherein A includes a straight chain of at least two carbon atoms between the nitrogen atom and the phosphorus atom of general formula (I); and

R₃ and R₄ are independently selected from the group consisting of hydrogen, substituted and unsubstituted C₁₋₂₆-alkyl, substituted and unsubstituted hydroxy-C₁₋₂₆-alkyl, substituted and unsubstituted aryl, substituted and unsubstituted acyl, substituted and unsubstituted aralkyl, substituted and unsubstituted C₁₋₂₆-alkenyl, substituted and unsubstituted C₁₋₂₆-alkynyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted heterocyclic radical, halogen, OX₃ and OX₄;

X₃ and X₄ being independently selected from the group consisting of hydrogen, substituted and unsubstituted C₁₋₂₆-alkyl, substituted and unsubstituted hydroxyl-C₁₋₂₆-alkyl, substituted and unsubstituted aryl, substituted and unsubstituted acyl, substituted and unsubstituted aralkyl, substituted and unsubstituted C₁₋₂₆-alkenyl, substituted and unsubstituted C₁₋₂₆-alkynyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted heterocyclic radical, silyl,

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a metal of the first, second or third main group of the periodic table, ammonium, substituted ammonium, ammonium salt of ethylene diamine and ammonium salt of an amino acid.

Claim 40 (Canceled):

Claim 41 (Currently amended): A method of treating a subject susceptible to infection by an infectious agent according to claim 40 ~~46~~, wherein:

R2 is a substituted or unsubstituted acyl;

R3 is selected from a group consisting of hydrogen, methyl and ethyl;

R4 is selected from a group consisting of hydrogen, methyl, ethyl and OX4;

X4 being selected from hydrogen, sodium, potassium, methyl and ethyl; and

A is a 3 carbon moiety selected from the group consisting of alkylene radical, alkenylene radical, and hydroxyalkylene radical.

Claim 42 (Previously presented): A method of treating a subject susceptible to infection by an infectious agent according to claim 41, wherein:

X₁ is hydrogen;

R₂ is selected from formyl and acetyl; and

A is selected from propenylene and hydroxypropylene.

Claim 43 (Previously presented): A The method of treating a subject susceptible to infection by an infectious agent according to claim 39, wherein:

the infectious agent is selected from a group consisting of fungi, unicellular parasites, multicellular parasites, bacteria and viruses.

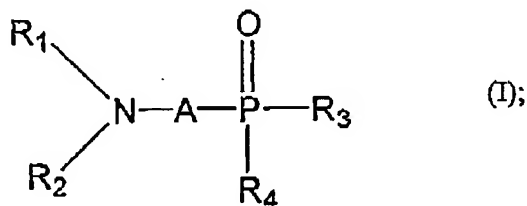
Claim 44 (Previously presented): A method of treating a subject susceptible to infection by an infectious agent according to claim 43, wherein:

the infectious agent has the potential to produce a malarial infection in a human subject.

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Claim 45 (New): A method of preparing a pharmaceutical composition comprising mixing a therapeutically effective amount of a compound, a tautomer, ester or amide of the compound or a pharmaceutically acceptable salt of the compound, tautomer, ester or amide, with a pharmaceutically acceptable excipient, wherein the compound corresponds in structure to Formula I:



wherein:

R_1 is OX_1 ;

R_2 is independently selected from the group consisting of hydrogen, substituted and unsubstituted alkyl, substituted and unsubstituted hydroxyalkyl, substituted and unsubstituted alkenyl, substituted and unsubstituted alkynyl, substituted and unsubstituted aryl, substituted and unsubstituted acyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted aralkyl, substituted and unsubstituted heterocyclic radical, halogen, and OX_1 and OX_2 ;

X_1 and X_2 being independently selected from the group consisting of hydrogen, substituted and unsubstituted acyl, substituted and unsubstituted alkyl, substituted and unsubstituted aryl, substituted and unsubstituted aralkyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted heterocyclic radical;

A is a 2-9 carbon moiety selected from the group consisting of alkylene radical, alkenylene radical, and hydroxyalkylene radical, and includes a straight chain of at least two carbon atoms between the nitrogen atom and the phosphorous atom of Formula (I);

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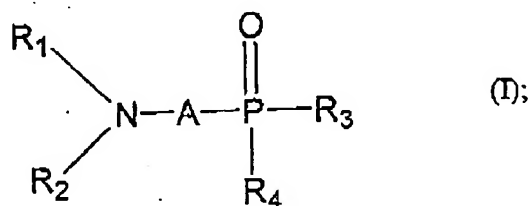
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R_3 and R_4 are independently selected from the group consisting of hydrogen, substituted and unsubstituted C_{1-26} -alkyl, substituted and unsubstituted hydroxy- C_{1-26} -alkyl, substituted and unsubstituted aryl, substituted and unsubstituted acyl, substituted and unsubstituted aralkyl, substituted and unsubstituted C_{1-26} -alkenyl, substituted and unsubstituted C_{1-26} -alkinyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted heterocyclic radical, halogen, OX_3 and OX_4 ;

X_3 and X_4 being independently selected from the group consisting of hydrogen, substituted and unsubstituted C_{1-26} -alkyl, substituted and unsubstituted hydroxyl- C_{1-26} -alkyl, substituted and unsubstituted aryl, substituted and unsubstituted acyl, substituted and unsubstituted aralkyl, substituted and unsubstituted C_{1-26} -alkenyl, substituted and unsubstituted C_{1-26} -alkinyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted heterocyclic radical, silyl, a metal of the first, second or third main group of the periodic table, ammonium, substituted ammonium, ammonium salt of ethylene diamine and ammonium salt of an amine acid.

46. (New) A method of treating subject susceptible to infection by an infectious agent comprising:

administering a therapeutically effective amount of a compound or a tautomer, ester or amide of the compound, or a pharmaceutically acceptable salt of the compound, tautomer, ester or amide, wherein the compound corresponds in structure to Formula I:



wherein:

R_1 is OX_1 ;

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R_2 is independently selected from the group consisting of hydrogen, substituted and unsubstituted alkyl, substituted and unsubstituted hydroxyalkyl, substituted and unsubstituted alkenyl, substituted and unsubstituted alkynyl, substituted and unsubstituted aryl, substituted and unsubstituted acyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted aralkyl, substituted and unsubstituted heterocyclic radical, halogen, and OX_1 and OX_2 ;

X_1 and X_2 being independently selected from the group consisting of hydrogen, substituted and unsubstituted acyl, substituted and unsubstituted alkyl, substituted and unsubstituted aryl, substituted and unsubstituted aralkyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted heterocyclic radical;

A is a 2-9 carbon moiety selected from the group consisting of alkylene radical, alkenylene radical, and hydroxyalkylene radical, and includes a straight chain of at least two carbon atoms between the nitrogen atom and the phosphorous atom of Formula (I);

R_3 and R_4 are independently selected from the group consisting of hydrogen, substituted and unsubstituted C_{1-26} -alkyl, substituted and unsubstituted hydroxy- C_{1-26} -alkyl, substituted and unsubstituted aryl, substituted and unsubstituted acyl, substituted and unsubstituted aralkyl, substituted and unsubstituted C_{1-26} -alkenyl, substituted and unsubstituted C_{1-26} -alkynyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted heterocyclic radical, halogen, OX_3 and OX_4 ;

X_3 and X_4 being independently selected from the group consisting of hydrogen, substituted and unsubstituted C_{1-26} -alkyl, substituted and unsubstituted hydroxyl- C_{1-26} -alkyl, substituted and unsubstituted aryl, substituted and unsubstituted acyl, substituted and unsubstituted aralkyl, substituted and unsubstituted C_{1-26} -alkenyl, substituted and unsubstituted C_{1-26} -alkynyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted heterocyclic radical, silyl, a metal of the first, second or third main group of the periodic table, ammonium, substituted ammonium, ammonium salt of ethylene diamine and ammonium salt of an amino acid.